Reassembling academic work: a sociomaterial investigation of academic learning

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Abstract

Academic work is changing fast, as is the work of other professionals, because of challenges such as accountability and regulations frameworks and globalised academic markets. Such changes also have consequences for everyday academic practice and learning. This paper seeks to explore some of the ways in which academic work is changing by opening the 'black-box' of everyday academic work and examining the enactment of academics' everyday learning. The paper draws on a study of everyday academic practice in the social sciences with respect to the institution, the department and the discipline. Assuming a sociomaterial sensibility, the study also sought to understand how academics' learning is enacted in everyday work. Within three universities, fourteen academics were work-shadowed; social, material, technological, pedagogic and symbolic actors were observed and, where possible, connections and interactions were traced. The paper illuminates through two stories from the study how specific practices and meanings of disciplinary academic work are negotiated, configured and reconfigured within and beyond the department or meso-level, attending to resistance and rejection as well as accommodation and negotiation. The paper responds to educational concerns of professional (here, academic) learning by foregrounding both the assembling and reassembling of academic work and the enactment of learning.

Keywords: academic work; professional learning; sociomateriality

Introduction

Academics, in common with other professionals, face multiple challenges (Fenwick, Nerland and Jensen, 2012) including a globalized academic market, evolving knowledge cultures in the face of globalization and technological change, ever-increasing accountability and regulation frameworks and public service funding cuts. These challenges have consequences for academic work: existing practices are reassembled and new practices introduced. To trace how such changes come about and play out in everyday academic practice, we need to understand better the 'black-box' of everyday academic work. Therefore, this paper seeks to explore some of the ways in which academic work is changing by opening the 'black-box' of everyday academic work and examining the enactment of academics' everyday learning.

Academic Work

What is academic work? Certainly, it involves teaching and research, the focus of much legislation and policy intervention. There is a third catch-all category in the discourse of academic work: institutions collect a wide-ranging variety of activities (for example course leadership, departmental roles, managing others) together in the basket of administration (or service). Teaching, research and administration are the basis for negotiating workloads, promotions, performance management; in short, they are assumed to encompass all academic practice. This is what we have called the 'official' story of academic work (Malcolm and Zukas, 2009).

Each practice might be recognised as incorporating a wide array of activities. For example, 'teaching' could be defined by university managers as entailing curriculum development, preparation, time spent in rooms with students 'teaching', 'giving tutorials' or 'supervising', time spent online in virtual learning environments, assessment and moderation. The activities might be extended or sub-divided in response to policy interventions. For

example, in the UK, 'public engagement with research' (PER), as a 'new' sub-category of research activity, has emerged over the last ten years. PER has been defined as 'the myriad of ways in which the activity and benefits of … research can be shared with the public.' (NCCPE, 2018). PER's identification and incentivisation has enabled research funders to persuade Government of the utility of research for 'public benefit'. To encourage academics to undertake PER, universities might add it as an 'official' activity to academic workload models or research accounting procedures.

But the 'official' stories of academic work are not the same as the lived experience of academic work. Like all classification systems (Bowker and Star, 1999), workload model forms are powerful technologies which change work, as well as 'measure' it (Malcolm and Zukas, 2009). Strathern (2000) makes a similar point in her work on audit verification and knowledge production: '… academic work in general, and the knowledge to which it leads, becomes caught up in meta-descriptions (accounts) of what the work purports to be.' (p 283) Elsewhere, we have argued that these 'official' stories are normative fictions about academic work which are used as shorthand to define, quantify, manage and regulate what academics do (Malcolm and Zukas, 2009). This is not to say that academics ignore these fictions: when colleagues ask for more time to be factored into workload models to 'develop PER' or refuse to do something because 'there is no time for it in the workload model', it is as if the models describe everyday working and encompass working practices.

Hence, despite intricate workload models with ever more complex sub-divisions and weighting tools (for example, Houston et al, 2006; Barrett and Barrett, 2007; Tight, 2010; Kenny and Fluck, 2014), there is a dislocation between these 'official' stories describing and allocating time to work, and the everyday experience of academics. This is partly because academic work is in flux: it is constantly evolving through diversification (so for example

research proposals and contracts, online teaching and PER are now required rather than optional pursuits) and specialisation according to career position and contractual status (Musselin, 2007 p 3). It is also because managerial attempts to 'objectify, categorise, regulate and record academic activity' legitimate some activities and constitute others as 'mess' (Malcolm and Zukas, 2009 p 503). So, for example, until recently, PER activities would have been seen as 'mess' rather than official work.

Many researchers have sought to convey stories about the 'real' lives and work of academics beyond the 'official' story. For example, there is research about academic identity (e.g. Clegg, 2008, Henkel, 2000, Billot, 2010, Billot and King, 2015), experiences of academic work (e.g. Fanghanel, 2012; Gornall and Salisbury, 2012), and a recent strand which considers academic time (for example Vostal, 2015; 2016; Ylijoki and Mäntylä 2003; Ylijoki, 2013). Such work helps us understand the limitations of the 'official' story as far as work activities are concerned. The 'official' story of the academic workplace as the physical campus (Malcolm and Zukas, 2005) is also only partial: as Les Back notes, 'It's a curious, perhaps even a unique thing in the world of employment, that academic employees often try to avoid going to work in order to work.' (2016, p 103-104). So academic work happens at home in kitchens, on trains, in coffee shops. Of course, this is only true in relation to certain kinds of work and disciplinary practices: it would be difficult for laboratory-based scientists, for example, to undertake their work somewhere else. But the point is that we cannot rely on 'official' stories to understand what and where academic work is done and how it is assembled and reassembled.

Work, Practice and Learning

To study the 'black-box' of everyday academic work, we take a sociomaterial approach. That is, in common with researchers with a sociomaterial sensibility, we are concerned with the

relationships between humans, things, technologies and texts and what these relationships produce, rather than on individuals and/or practices. Borrowing from Orlikowski (2010), we wish to trace the 'entanglement' of material and social forces which are implicated in producing the activities which constitute academic work. However, we are not only interested in describing the 'entanglement' of academic work, but also how academics' everyday learning is enacted. Alongside other researchers of professional learning, we understand learning to be more than individuals' acquisition – cognitive or otherwise – of knowledge, skills, behaviours, etc., although for us, this is a legitimate understanding of learning. Sociocultural and other theories which stress the involvement of tools, activities and language have redefined learning as participation (Sfard, 1998), and this also remains a legitimate form of learning for us. But, even if the individual is subsumed within a 'community of practice' (Lave and Wenger, 1991), these definitions of learning remains human-centred - the material is the context or background for learning, while the human, the social and the cultural are regarded as foundational (Sørenson, 2009; Fenwick and Edwards, 2013). Given our starting point – that we are concerned with the social and material entanglements of academic practice – we therefore share the view that learning is also 'a materializing assemblage' (Fenwick and Edwards, 2013, p 54). It is not only a product of some process (as in the acquisitive view); nor is it solely the human activity of participating (as in the participatory view); instead, the focus here is on the networks of humans and materials through which learning is enacted: 'It is through the being-together of things that actions identified *as* learning become possible.' (p 54). We are concerned with this 'being-together of things'. Thus, we do not separate everyday practice and learning; we understand practice to be 'the enactment of and a medium for learning' (Fenwick and Nerland, 2014, p 3).

For us, political questions are at the heart of our work. We are committed to understanding the flows of power and patterns which bring about work – specifically

academic work. By tracing these entanglements, we begin to understand how certain objects and practices are entrenched and 'blackboxed' (Latour, 2005) such that they are considered inviolable and 'common-sense' - the use of workload models to manage academic time for example. In the case of academic work, material forces as well as policies, disciplinary practices and so on shape teaching, learning and research in ways that control and limit what is possible. Sociomaterial entanglements of tools, policies, things, measuring devices, technologies, texts, people - these bring forth or reassemble (new) kinds of work for academics. We are interested in precisely how such practices come into being – how they are, in effect, learnt.

Institutions, Disciplines and Departments – the Meso-level

As we noted above, although the 'official' story of the academic workplace is the campus, there are many places in which academic work happens. The academic workplace is both structurally and practically multiple (Mol, 2002) as is academic work: that is, there is no 'object' waiting to be seen but 'Instead, objects come into being – and disappear with the practices in which they are manipulated' (Mol, 2002, p 5). Other 'workplaces' include the institution, the department and the discipline. In everyday discourse, academics generally signal discipline as the primary object or workplace, with department and institution 'disappearing'. And there is no question that disciplines, as 'reservoirs of knowledge resources' (Trowler, 2012, p 9), format the academic workplace, work practices and shared practices such as patterns of discourse, pedagogical conventions, theoretical resources, behaviours and practices which bear family resemblances (Wittgenstein, 1953). So, too, do departments and institutions.

Academics may experience institutional, departmental and disciplinary practices as connected, coherent and harmonious and/or as discrepant, discordant and even conflicting.

Those at different stages of their careers, in different institutional positions and in different universities negotiate these practices more or less successfully over a career. But such practices are not fixed, not stable, but assemblages themselves. So, for example, academics may find promotion criteria developed to 'encourage' PER, not because the university believes this to be inherently valuable academic work, but in response to the demands of the research funders and the British Research Excellence Framework. They may have to learn new forms of self-presentation as departments require that lectures be video-taped and podcast to satisfy institutional demands to respond to flexibility and 'student-led learning' discourses by 'flipping' the classroom and 'blending' learning; and such practices are only possible – indeed only imagined – because of certain technologies. The point here is that practices are constantly changing so that, regardless of length of service, academics, like departments, universities, disciplines, and other professionals, are 'learning'.

As educators of academics (teachers, researchers), as academic managers and as academics ourselves, we are attuned to the often incoherent, discordant and disconnected practices of the institution, the department and the discipline. In this study, therefore, as well as opening the 'black-box' of academic practice, we wanted to explore how the relationships between discipline, department and university are enacted in the everyday practices of academic work.

For this reason, we decided originally to research academic work at the departmental or meso-level (however work is organised locally). We are not the first to do so. For example, Trowler (2008) has made the case for studying 'workgroups' (usually below the level of department) where curriculum planning and other task-based teams set out with a unified focus to bring about some change. Hannon (2016) is also interested in learning, change and what he terms 'obduracy' (after Law, 2003) particularly in university teaching and learning

contexts. Having noted that theories of change in universities assume that change (and learning) happens through an orderly, coordinated and integrated process, even if resistance and difficulties occur along the way, he argues that this is not the case: 'an array of disparate elements … interact in unpredictable and 'messy' ways' (2016, p. 4). His sociomaterially-oriented investigation of two curriculum 'workgroups' responding to University and School 'directives' about blended learning draws attention to 'obduracies' such as disciplinary teaching traditions and teaching spaces, publishers' and institutions' competing networks, and the competing network logics of strategic imperatives versus scholarly teaching practices.

The 'department' (the organizational unit which manages academics and academic work) or meso-level is the space where institutional policies, practices and desires intersect with disciplinary (as in the 'family resemblance' sense) academic concerns, practices and cultures and where the departmental histories, cultures, etc. are brought into being. It is also importantly the place where the competing demands and imperatives of research, teaching, administration, student support and so on are, of necessity, fought over, balanced and distributed. The 'department' is the intermediary between disciplinary practices, academics and institutional interests, transforming institutional desires and standardized practices into ones that can be brought into being within research and teaching. Only through the 'department' and departmental practices can academics and academic work be enacted.

But discipline is important too - disciplinary practices are essential in understanding academic work, even if they 'disappear' when institutions and departments are the 'objects' that have come into being. While studies of laboratories and medical science (e.g. Latour and Woolgar, 1986; Berg and Mol, 1998) formed the basis for the social science of science and technology studies, there are very few studies of the social sciences themselves. We therefore decided to address this omission by basing this study on the social sciences.

In summary, we set out to explore the 'black-box' everyday practices of academic work in the social sciences, and to examine the sociomaterial enactment of academics' learning, tracing the relationships between the discipline, the department and the university in assembling and reassembling academic work. In the next section, we describe how we attempted (and failed) to study the department or meso-level, and what we did instead.

Method – researching academic practice

We set out to study two social science disciplines in each of two universities – thus four linked case studies. We were keen to utilise ethnographic and visual methods to investigate how those disciplines were practised in contrasting institutional settings. We believed that we could identify and focus on the 'actors' (social, material, technical, textual, human …), not as 'objects' of the study but in order to trace the web of relations that constitute disciplinary academic work. We wanted to illuminate how specific practices and meanings of disciplinary academic work are negotiated, configured and reconfigured within and beyond the department itself. To reiterate, disciplines, departments and institutions are 'effects' of relations between the material, the social, the technical and the human rather than structures with foundational properties; such relations are not stable but always in flux, connected and disconnected, accommodated and resisted, negotiated and rejected in the everyday practices of academic work. We sought to understand how learning is enacted, both to trace assemblages of knowledge and practice as they are brought into being, and to suggest ways in which such assemblages might be supported, disrupted or even broken.

The four case studies were to be based on workplace observation (e.g. meetings; teaching and research activities; technological, collegial and social interaction; ethos, rituals, departmental 'stories'), plus recording and analysis of visual data (e.g. photographs, artefacts, site maps) and institutional documents/ textual objects. In each case the connections made

beyond the institution to significant disciplinary networks and organisations were to be examined. Interviews were planned with four academic staff in each department, selected to cover a range of career stages and backgrounds, to explore perceptions of how the workplace creates and sustains the disciplinary practices, learning and careers of its members.

All did not go to plan. While securing access to study any professional learning is challenging, it proved to be especially true when seeking access to academic workplaces. We used our networks to approach over a dozen departments. We spoke to many colleagues who were interested and visited senior departmental members. But promising leads dropped away. Sometimes we were given a reason why the research could not be done 'now' - the department was involved in an internal review; the whole of the department would need to agree to the study and this would be time-consuming or near impossible. Or, more usually, we did not hear back, despite a couple of reminders. Observing workplace practices was proving to be rather more difficult than we had imagined. Even academics who themselves engaged in workplace observation for research purposes were apparently unwilling for their departments to become the focus of researcher attention.

Regardless of our securing ethical approval and our assurances of anonymity and confidentiality, we sensed that, in some instances, those running departments feared the punitive institution which could, if it knew what was 'really' going on, withdraw resources or take revenge in some other way. We also felt that individuals were concerned about a potential loss of reputation which might affect student recruitment. Sometimes, we had a sense of departmental vulnerability – the fear that rifts, schisms, interpersonal hostilities which were contained in the department would all be exposed to outsiders' eyes. And from some there seemed to be an unspoken fear of judgement – that we would find the department somehow lacking. In short, those we approached appeared to be wary of both the desire to

research social science academic practices, and of social science method.

Eventually, we had to take a different tack: we shadowed the work of 14 individual academics in eight social science departments in three different universities – what might be called 'ethnography by stealth'. This involved developing 14 case studies based on recorded workplace observation (e.g. deskwork, meetings, teaching and research activities, technological, collegial and social interaction, ethos, rituals), recording and analysis of visual data (e.g. photographs, artefacts, site maps, screenshots), and gathering and analysis of institutional documents/ textual objects (e.g. workload allocation models, minutes, prospectuses, web pages, staff policies). Where possible, each person was shadowed for at least a full day, sometimes longer. Further site visits were made for events such as conferences and meetings. Institutional, departmental and individual websites and other electronic traces were included in the data collection. Finally, each academic was interviewed using a semi-structured interview protocol, to explore perceptions of how the 'workplace' creates and sustains the disciplinary practices, learning and careers of its members. Interview transcriptions added to the data pool.

Our analytical approach, in line with our sociomaterial sensibility, attempted to 'follow the actors themselves': that is, we tried:

> …to catch up with their often wild innovations in order to learn from them what the collective existence has become in their hands, which methods they have elaborated to make it fit together, which accounts could best define the new associations that they have been forced to establish. (Latour, 2005, p 12)

We sought not only to observe what is present in a situation but to understand the relations, networks and webs of practice; in other words, we were trying to study the assembling (and reassembling) of academic work – how academic work came into being.

The danger with our aim to open the 'black-box' of everyday work is that this becomes a descriptive account of entanglements in which we become 'overly fascinated with conceptions that trace complexity and assemblings, without asking how such analysis is any more productive in understanding and responding to educational concerns' (Fenwick and Edwards, 2013, p 57). So, in order to assist our analysis, we found Wolcott's (1994) three-phase process for the transformation of qualitative data: description, analysis and interpretation helpful, despite its derivation from research about the *social* rather than the *sociomaterial*. Thus, in the descriptive phase, the data generated through each individual (field notes, photographs, screenshots, online profiles, interview transcripts, etc) were reviewed and elaborated into a case description in which we sought to include all actors – and not just the human. Through this process, we were finding, rather than following the actors. From these case descriptions, 14 anonymized case narratives were developed, drawing together the individual, the tools and technologies, the department, the discipline, the university, and other people as actors in a constructed story of the sociomaterial practice of academic work, responding to the question 'what academic work is being enacted'? These case narratives were then further analysed with the following themes in mind: working practices, relationships and tools; disciplinary practices and relationships; institutional and departmental practices and relationships; teaching practices and relationships; and learning. This led us finally to formulate ('interpret') the departmental relations, networks and webs of practice which assemble academic work, and to propose how academics' everyday learning is enacted.

This process of collecting data, description and analysis is not, of course, neutral. Law (2017), alongside many other scholars with a sociomaterial sensibility, observes that methods themselves are performative: they 'heterogeneously enact objects, worlds and realities' (p 48). Fenwick and Edwards (2013) also argue that, as educational researchers, we need to

confront how our research practices configure the world as research. To do so, we need 'a sensibility for, and a language for speaking about, both the order and the mess that are mutually enacted in the material swarms of educational worlds' (p 60). Law (2004) also recommends that we cultivate our sensibility for mess, but makes the crucial point that we need to be able to distinguish between that mess which is politically and methodologically important and that which is not.

We have elected to tell two stories which we think illuminate politically and methodologically important mess: one concerning teaching, and the other about research. They are not comprehensive accounts: they are brief incidents from only two of our 14 case narratives (each running to many pages). We have used them here to exemplify our analysis; they enable us to trace relatively concisely some of the relations, actor-networks and webs of practice that assemble and reassemble academic work. Our cases are also selected to interrupt that which seems to be 'common sense' or 'matters of fact' (Latour, 2005) in academic work and life in order to 'make a difference' (Law, 2017). They help us to show how sociomaterial entanglements also bring forth inequities and injustices, unintended or otherwise. We follow our stories with broader analysis, first about these two stories and then about academic work more generally.

The first story: a summer school module

As part of a day shadowing Cathy, I (MZ) go to a meeting which involves the (male) head of department and five colleagues from one of the departmental groups: four women and one man; one of the women is a post-doc and does not contribute to the discussion. Cathy is a relatively junior academic who is on research leave. However, she has been asked by the head of department to attend the meeting. Participants know that the meeting is about a summer school, but not much else. The meeting takes place in a classroom where desks and

chairs have been scattered round the sides, leaving two desks facing each other, surrounded by half a dozen chairs. In line with our research protocol, I ask for the group's consent to observe them. They agree readily, commenting that the project is interesting. I sit well away from the meeting desks and chairs, out of the line of sight of most people, and take copious notes. I do not record the meeting in any other way.

One further person is supposed to attend the meeting but has not shown up on time. While they wait, colleagues discuss national politics, students, a doctoral student application, and details about a colleague on jury service. After ten minutes, the missing person still has not appeared, so the group agree that the meeting should start.

The head of department then introduces the meeting by saying that there has been a directive from the senior management team of the University for departments to put on summer school modules for international undergraduates. This, he explains, is 'for money and recruitment'. The modules will take place over two weeks in the summer. It is expected that some students will take the module without credit 'to have an interesting experience' whilst others will want credits, so assessment will need to be integrated into the two weeks.

When group members immediately start to raise objections about the timing – it is not conventional to teach in the summer in this university - the head of department says 'This is not take it or leave it. Just take it'. He says that the development is good news because the money generated from student fees will come to the department 'after tax' (that is, after the University's overhead is deducted).

A suggestion is made that self-funding PhD students should help to teach the module. A discussion ensues about the need to fit forty hours of tuition (the amount of teaching associated with the number of credits for each module, as stipulated by university regulations) into two weeks. The 'independent study hours' (the amount of independent study

associated with the number of credits as regulated by the university) are, says the head of department, ‘an issue’ (because there are not enough hours in two weeks to satisfy the normal requirements for this amount of credit).

Many questions are raised by the group members: what is the approval process? What have other departments have been asked to do? What incentives are there? Who will be willing to commit their time in June/July? Will this not this compete with another module the department is running in the summer? The head of department responds that the approval process is the same as usual; that it will be worth figuring out the academic time the module takes (so that it can be included in the workload model); that it will not compete because the other module is for postgraduate students.

The questions become more specific: one group member asks: ‘What’s the incentive to spend my time here? If I’d been offered all expenses paid, I’d do it.’ Another says ‘I see them putting extra work on us’. A third asks ‘What is the pay-off?’ Cathy says ‘To be honest, as an academic, why do you need to be incentivized?’ The discussion then returns to the question: ‘do we have to do it’? The head of department is insistent because, he says, the senior management group have insisted. He argues that nobody would ‘have to be there all the time’.

There is a further discussion about accounting for the teaching in the workload model which, says the head of department, needs to be checked with another colleague. Cathy, who is finally on research leave after ten years of administrative duties, volunteers to draw up the module. The discussion moves on as to why the institution wants to set up these modules. There is agreement that ‘it’s all a marketing exercise’. By the end of the meeting, I realize that I do not know what this two-week module will be about.

The meeting then closes.

The Responsive Academic

It comes as no surprise to us – and perhaps to readers - that, although Cathy is the one person at the meeting entitled to refuse to take on the work of creating the module (to repeat, she is relatively junior and on research leave which should mean that she is protected from administrative work), she ends up volunteering. The head of department does not resist her offer; no-one else suggests that this is unfair; nor does anyone propose that they share the work. So how might Cathy's seemingly selfless act be understood? Some accounts would focus on Cathy's psychology – perhaps they might speculate on her need to be involved in things, even though she is on research leave. Others might take a structural approach, focusing on the gender and power politics playing out in the meeting – Cathy's relatively junior position and her gender leaving her open to pressure and/or exploitation.

In contrast, along with other sociomaterial researchers, we are attempting to move away from trying to explain what lies behind Cathy's action (as in the psychological and sociological explanations above) to study the 'methods of assembling' (Law 2017). As outlined above, we want to understand the relations, networks and webs of practice which effect actors such as Cathy as the summer school module designer. So we want to understand how power is done – not just that it is done. This involves administrators, classrooms, students, application forms, other academics, promotion criteria, institutional policies, module templates, workload model forms, exploitative heads of departments – the list is long, though not endless. It also involves webs of academic practice. Since Cathy joined the department as a new academic (this is her first post), doing work has taken specific forms - completing forms, undertaking module evaluations, writing new programmes, working with others, even responding to their requests day or night.

Thus, we could say that Cathy has learnt to 'participate wisely in situ' (Fenwick,

2013, p 51), if we understand this work – what we call the work about the work – to be meaningful academic work. And it is productive – she will write a module that 'needs' to be written. But this assemblage could be undone – although it seems inevitable that Cathy will do the work, the patterns of relations are not fixed but variable. In this respect, Mol's (2002) notion of multiple ontologies is helpful because it offers other possibilities for Cathy - different practices enact different objects. So, employing the language of actor-network theory, Cathy could have been formatted differently in the meeting – for example as Cathy the researcher whose time should be protected. There are other possibilities too: the head of department could have resisted the university imperative or addressed it in another way; Cathy could have declined the invitation to a meeting during her research leave; the meeting could have agreed that there was no pedagogic need for students to study in the summer; students could have been consulted about what they felt would be best for them. Even the module template form could have been torn up, although this is unlikely, given how the form stabilizes the network of institutional quality assurance, accountability and student learning equivalence, as we discuss below.

The Module as 'Work about the Work'

We can also trace in the meeting 'the work about the work'– the systems and procedures developed to monitor, manage, evaluate and present the work of teaching to students and to the outside world. What is curious about this 'work about the work' is its primacy over any questions of disciplinary content, pedagogy and purpose. At no point does the meeting discuss what, if anything, the students need to learn.

The two-week summer school module will be effected through networks of practice. Cathy will complete a standardized modular template form, populated with (fictional) independent study hours as well as teaching hours and content, learning outcomes,

assessment and reading lists. The form itself is the sedimentation of numerous networks and practices (quality assurance, national standards and comparisons, 'best practice' in curriculum development, computerized student management systems, to name a few). It is, in Latour and Woolgar's (1986) terms, an 'immutable mobile' – 'something that moves around, but also holds its shape' (Law and Singleton, 2004). The form itself will do work – it already pre-determines the shape of the programme ('Forty hours of tuition means twenty a week which translates into four a day') and requires certain kinds of academic effort (developing learning outcomes, for example) to translate it into a 'module'. The completed form will present to an accreditation committee the department's response to the university's directive and, in turn, the accreditation committee will probably wave through the obvious fiction of hours and hours of independent study, knowing that this is a response to a university directive.

The Workload Model

We can also trace, as we have done elsewhere, how the 'mess' of academic work (Malcolm and Zukas, 2009) is managed. The request to tinker with the accounting mechanism of the workload model, itself based on fictional hours, is acceded to in order to persuade academics that this is not 'extra work' (when it is, of course). The effort required to concoct the module is not part of the workload model discussion because only certain kinds of work are taken into account in the 'official' story of academic work.

The Complying Department

Cathy, the head of department and the summer school module effect the complying department in the 'non-negotiating' institution. It seems odd though that institutional instructions are entirely non-negotiable; as an observer at the meeting, I was struck that the institution appeared not to be based on people and relations, but instead as a structural

'object' which demanded compliance. As we noted above, there are many possible effects of the relations between discipline, department and university other than the strategically compliant one: for example, the existing curriculum might have been examined to bring into being a summer school which assembled and stabilized different interests: student learning needs; institutional desires for international students; competitive positioning across universities. Indeed, this could have been an exercise in curriculum building – arguably essential to the health of the discipline. However, the disciplinary intermediary – the head of department – presents the module exercise as a response to the expediency of the institution and, instead, any curriculum building is thwarted and forced into institutionally prescribed structures.

The second story: Steven and his website

Northside University has strong research and league table ambitions and is investing heavily in supporting researchers such as Steven who is a well-established professor in his field with a strong track record of gaining research funding and a lengthy publications list. Steven is based in a newly-built research centre which is at some distance from the disciplinary department to which he belongs. The centre houses other professors, readers and research staff from departments in the social sciences, resulting in what Steven calls a 'complete schizoid message': while all staff are supposed to be research active, those of a certain standing are removed from the department and located in the centre '…so we're not a department in any way. We call ourselves the research building.' As well as supporting researchers with new buildings, Northside supports researchers materially, for example in paying for staff to attend international conferences though, as Steven says, 'they may want you to take some recruitment fliers or the university mug to Malaysia'.

Steven has maintained a public web resource on methodology for some time, through which he makes aspects of his research available to practitioners and students. He has never had a problem with this in the past, but Northside now has a strong central drive to ensure that all web pages conform to an institutional template and style. On the day I (JM) observe him, he has just discovered that someone in the corporate communications office has revised these webpages without consulting him, rewriting them as a public relations exercise about the strength of Northside research. Steven (an otherwise mild-mannered man) is roused to a state of fury by this – as he sees it – appropriation of his intellectual output for corporate ends. He is particularly incensed by the self-promoting style adopted and the obvious failure to understand the content or purpose of the material; Steven feels that his academic autonomy has been breached, and the offence is compounded by its public nature, and the fact that the webpages are intended to attract postgraduates to come to the institution. He makes a point of going to the communications office to make his feelings known (and asks his observer to stay outside while this happens – he is anxious that the offending member of staff should not be further humiliated by having an audience). Apparently, the person involved was only following orders. The encounter leaves Steven rather upset and unable to focus on his work; he feels slighted by Northside.

Reassembling Academic Work: Buildings, Mugs and Networks

We described how Northside has relocated certain staff into a new centre – one which is dislocated from the department, and which is supposed to focus on research-related activities. The physical removal of 'research' and researchers from other disciplinary practices (teaching, service) and from departmental membership is not conducive to disciplinary collegiality, but it materialises institutional ambition. Of course, it also illuminates one way in which the 'official' story of academic work is stabilised. Importantly, the relationship

between the building and the academics is not simply of one housing the other: instead, research is constituted by both academics and the building – that is, the relations between actors. A corollary is that what happens in the physically-removed department is, presumably, not 'research' and those outside the research centre are not really researchers.

Research travel funding, flyers and mugs, academics, recruitment offices – all are networked in this instance. The flyers and mugs which academics are required to take to far-flung countries also do work, not just on behalf of the institution, but also in formatting academic work and academics: they re-assemble academics as recruiting agents of the institution for undergraduate teaching, as well as researchers. Academic work – in this case research – expands to include international outreach activity.

At one level, the standardisation of Steven's website into the institutional template and style could be understood as a form of house-keeping, intended to smooth out the messiness of academic self-produced pages. But the reconfigured and rewritten website also does work – not the academic work as understood by Steven as its purpose, but public relations and marketing work, speaking out about the institution's research stars in order both to raise the institution's reputation as a place where research happens and to recruit postgraduate students. The web of practice into which the website is assembled is institutional self-promotion and not methodological resources for practitioners and students.

The point here is not to dismiss Steven's indignation - as fellow academics, we were alarmed on his behalf – but to trace how his academic work is reassembled. Borrowing a concept from actor-network theory, we can think of the website as an object –one that relies on a network of relations to be visible. In this case, Steven's website is not an immutable mobile, although the institutional template into which Steven's web pages are crammed could be regarded as so: although the template moves around (across virtual networks, computers and mobile

devices) nevertheless it retains its characteristics in the network of relations. Nor is it a mutable object (de Laet and Mol, 2000) – one in which the relations that constitute the object are fluid, changing over time, as a module handbook might be. Instead, we suggest that the website is an example of what Law and Singleton (2004) call a fire object. Fire objects are transformative; like fire, those transformations are jumps or discontinuities. Fire objects are not only a presence, but also imply realities which are absent: 'we can't understand objects unless we also think of them as sets of present dynamics generated in, and generative of, realities that are necessarily absent' (p 13). The absences from Steven's website include his intended readers, his previous writings and Steven as someone who undertakes and shares his research; thus the website is constituted through a specific set of relations as a fire object. How different from the fire object of the repurposed website where the absences include the person 'only following orders' and the communications team, as well as the ambitious institution and the discourse communities of recruitment and marketing. Steven too is absent, though the website could not exist without his writing.

Academic Work Revisited

In these two stories, we have built on the understanding shared by sociomaterial researchers (e.g. Fenwick, 2015) that structures – here, universities, departments and disciplines - do not determine action, but are effects of material, social, technical and human relations. In the first story, the social relations in the disciplinary group, together with the material and technical relations such as the credit tariff's alignment with the amount of tuition, the modular template form requirements and the recalibration of the workload model which will eventually result in Cathy's academic work reassembled as creating (and probably teaching) a summer school module. These actor-networks effect the institutional dictat of a new module, not student demand nor curricular discussion.

In the second story, it is not the ambitious institution itself which creates the academic work that extends to include institutional positioning, recruitment and marketing. Instead, mugs and institutional brochures reassemble the research trip as recruitment; the materiality of a new research building disrupts the social and other relations of a department to separate research and researchers from other academic work. Of course, the material, social and other relations are not necessarily aligned: the repurposing of Steven's website and the reassembling of his work as standardised marketing material gives rise to challenge, to resistance and interruption rather than compliance and accommodation. And in our first story, we spelled out how the assemblage of the summer school module could be undone by, for example, agreeing to consult students about the need.

As well as opening the 'black-box' of everyday academic work in these two stories, we were also able to trace learning and knowing as '*enactments* (italics not in the original), not simply mental activity or received knowledge' (Fenwick 2015). We see above how template forms are pedagogic - for example, they pre-determine the questions to be resolved in creating the summer school. Cathy's learning is not simply a matter of acquiring the skills to fill in the form: she enacts the responsive academic in the compliant department. So, too, do her colleagues (although they will not write the module) when they ask about private study time and so on. Further, we could say that they have learnt to participate wisely in situ by resisting the summer school or, in the case of the absent colleague who never turned up, not engaging at all. We could say also that Cathy's learning is unwise if she is to pursue her research career. She has taken lessons about the work about the work too much to heart to thrive.

Steven, in contrast, has not taken lessons of compliance to heart but tries to challenge the person who has changed his website. However, in the transformation of his website as fire

object, learning and knowing are enacted – and these are hard and demoralising lessons. Not only is a mess of his work made in the attempt to fit with an institutional template and style, but also his intellectual property is reassembled for ends far distant from his original intentions, and Steven himself is repurposed as a recruitment agent by the institution.

These two stories have enabled us to trace concisely and, we hope, recognisably some of the relations, actor-networks and webs of practice assembling academic work and academics' learning. In some ways, though, because they are based on meetings, the stories do not reflect adequately what struck us most about academic work: that many of the academics we shadowed appear to spend most of their working days physically alone, aside from pre-arranged meetings, supervisions, seminars and face-to-face teaching. It is not the case that they are virtually alone. For many hours a day, they read and write emails wherever they are; they are thus enmeshed in multiple networks, be these near at hand with fellow colleagues and students, administrators and doctoral students, or at a distance with journal editors, colleagues in other universities across the world, ex-students and publishers. (See Zukas and Malcolm, 2017.)

We were also struck that academics spent considerable time engaged in what we came to call 'work about the work' – that is, with the institutional and supra-institutional systems and procedures developed to monitor, manage, evaluate and present the work of teaching and research to students and to the outside world. Such work was not only undertaken at the behest of the institution and department. For example, on their own initiative, individual academics spent considerable time promoting themselves to disciplinary communities and to the wider world through research-profiling sites such as Academia.edu and Researchgate. However, during our study we noticed that, in some institutions, such self-promotion was moving away from a voluntary activity and becoming a requirement.

Meetings about teaching and learning were filled with discussions about recording lectures, the introduction of cross-institutional feedback templates, appointing external examiners, arrangements for ensuring double-blind assessment (including who did what), and other 'work about the work'. Research meetings were dominated with issues such as research income target-setting, managing preparations for the upcoming UK Research Excellence Framework exercise and discussions about how to monitor the performance of individual academics as well as units of assessment, the management of the research bidding process, and other work about research. Matters of the *doing* of research, teaching and learning were not the meetings' main concerns, it appeared – institutional standardization (usually through templates and forms), institutional and departmental performance (with spreadsheets to hand), policy dissemination (often involving Powerpoint presentations) and reporting backwards and forwards took up most of the time allotted for the meetings.

Thus, although research and teaching – that is, disciplinary practices - are regarded by academics and their institutions as core academic work, the departmental actor-networks and webs of practice giving rise to changes in many aspects of disciplinary practice tend to be remote from the discipline. Academics are enrolled through forms, spreadsheets, agendas, websites and presentations in matters of standardisation, regulation, accountability and institutional promotion and marketing. Everyday work is reassembled and learning enacted as effects of these actor-networks and learning.

Conclusions

We began by suggesting that academics face multiple challenges, as do other professionals, and that these challenges – globalised academic markets, accountability and regulation frameworks – have consequences for academic work. We have taken a sociomaterial approach to opening the 'black-box' of everyday social sciences academic work and the

enactment of academics' everyday learning. We sought to illuminate through two stories how specific practices and meanings of disciplinary academic work are negotiated, configured and reconfigured within and beyond the department or meso-level, and to attend to resistance and rejection as well as accommodation and negotiation. In our approach and our analysis, we have tried to respond to *educational* concerns of professional (here, academic) learning by foregrounding both the assembling and reassembling of academic work and the enactment of learning.

Our study and this paper have many limitations. We were unable to conduct our original study and we had to settle for a method which potentially failed fully to foreground the department or meso-level. We outlined the challenges of access to social science departments and speculated on the reasons for resistance, but our speculations may be inaccurate. In writing this paper, we have been challenged by the need to engage our readers in the richness of the detail of our data, and yet to write convincingly about more general 'findings'. Some readers may judge us to have failed because they argue that our two stories are partisan: they are not objective. In response, we argue that we understand our work as researchers as doing something in here, as it were, as opposed to reporting something 'out there'. We also understand that our research practices are not even-handed: 'The God trick is out', as Law (2017) puts it. The research we undertake is an intervention in our worlds. We have chosen to focus on two stories which, we hope, enable us to interrupt the 'matters of fact' of academic life – in other words, to do political work or 'make a difference' by interrupting what seems natural or inevitable.

Researching professional learning always requires sophisticated theoretical resources and canny methodologies (e.g. Fenwick and Nerland, 2014). But there are special challenges when it comes to researching academics. First – and perhaps most obviously – we are

researching close to home. Even when we focus on disciplines with practices quite different from our own, we ask questions which resonate with our own academic perspectives, histories and experiences, and in which we have a professional stake. Recognising that the 'God trick' is out, in what ways is it possible to see our familiar worlds anew? Second, how do we ensure that social science departments are subjected to the same researcher 'gaze' (Wisniewski, 2000) to which we subject others? And third, our fellow academics/research participants are likely to have particularly sharp and critical views of what research questions we should ask, how we are undertaking our research, what our findings ought to be and so on. This is not, of course, to deny that researchers should always be prepared to justify their research questions and approach, regardless of who our participants might be.

The implications of our study for future research on academic work is the need to attend more closely to the sociomateriality of the everyday work practices of academics and the multiple actor-networks. This will help us understand now only how academic work is assembled and reassembled and academic learning is enacted but also how they are interrupted, resisted and rejected. For those trying to change academic practice, the study indicates why it is essential to look beyond individuals and units in considerations of academic learning. But there are still many outstanding issues. We still need a better understanding of the meso-level or department than we have achieved in our study. And studies which attend to the specificities of disciplinary practice would also contribute greatly to our understanding of academic work.

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